

Notice of Allowability

Application No.

09/615,624

Examiner

Gary B. Nickol Ph.D.

Applicant(s)

BROOKS ET AL.

Art Unit

1642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12-20-04.
2. ☒ The allowed claim(s) is/are 1,5,6,8-14,16,17,22-24,107 and 108.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

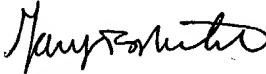
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☒ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


GARY NICKOL
PRIMARY EXAMINER

Gary B. Nickol Ph.D.
Primary Examiner
Art Unit: 1642

Art Unit: 1642

Re: Brooks *et al.*

Date of priority: 07-13-1999

Response to Amendment

The After-Final Amendment filed 12-10-2004 in response to the Office Action of 07-06-04 is acknowledged and has been entered.

Requirement for the deposit of biological material:

Claims drawn to the antibody FM155 (Claims 107 and 108) remain rejected for the reasons of record with regards to the deposit issues as previously set forth.

All other rejections and or objections are withdrawn in view of applicant's amendments and arguments there to.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

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Authorization for this examiner's amendment was given in a telephone interview with Olga Berson on 12-20-04.

The application has been amended as follows:

In the claims:

1. (Currently amended) An antagonist that inhibits angiogenesis by modifying protein-protein interactions between matrix metalloproteinase 9 (MMP-9) and a β 1-containing integrin, wherein said antagonist ~~is comprises~~ an antibody reagent or a peptide which specifically binds to a polypeptide consisting of the sequence of SEQ ID NO: 1.

2-4. (Canceled)

5. (Previously presented) The antagonist of claim 1 wherein the protein-protein interactions cause MMP-9 to bind to the β 1-containing integrin.

6. (Previously presented) The antagonist of claim 1 wherein the β 1-containing integrin is α 5 β 1 integrin.

7. (Canceled)

8. (Original) The antagonist of claim 1 wherein the protein-protein interactions cause co-localization of matrix metalloproteinase 9 (MMP-9) and a β 1-containing integrin ~~the first protein and the second protein~~ on a cell surface or a blood vessel.

9. (Original) The antagonist of claim 1 wherein said antagonist inhibits angiogenesis.

10. (Original) The antagonist of claim 1 wherein said antagonist inhibits tumor growth.

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11. (Original) The antagonist of claim 1 wherein said antagonist inhibits metastasis.

12. (Original) The antagonist of claim 1 wherein said antagonist inhibits a disease state.

13. (Original) The antagonist of claim 12 wherein the disease is psoriasis, macular degeneration, a neurological disease, or restenosis in a tissue.

14. (Original) The antagonist of claim 1 wherein said antagonist is a monoclonal antibody.

15. (Canceled)

16. (Currently amended) An antagonist that inhibits angiogenesis by modifying protein-protein interactions, ~~wherein the protein-protein interactions comprise interactions between at least one amino acid sequence within a first protein and at least one amino acid within a second protein,~~ wherein said antagonist ~~is~~ comprises an antibody reagent which specifically binds to a polypeptide consisting of the sequence of SEQ ID NO: 1.

17. (Original) The antagonist of claim 1 wherein the antagonist is a polyclonal antibody.

18-21. (Cancelled)

22. (Original) The antagonist of claim 1 wherein the antagonist is a humanized or chemically modified monoclonal antibody.

23. (Original) The antagonist of claim 1 wherein the antagonist is a fragment of a monoclonal antibody.

24. (Original) The antagonist of claim 1 wherein the antagonist is conjugated to cytotoxic or cytostatic agents.

25-106. (Cancelled)

~~25-107.~~ (Currently amended) The antagonist of claim ~~15-14~~ wherein said monoclonal antibody is monoclonal antibody FM155.

~~26-108.~~ (Currently amended) The antagonist of claim 16 wherein the antagonist is monoclonal antibody FM155.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary B. Nickol Ph.D. whose telephone number is 571-272-0835. The examiner can normally be reached on M-Th, 8:30-5:30; alternate Fri., 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Siew can be reached on 571-272-0787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

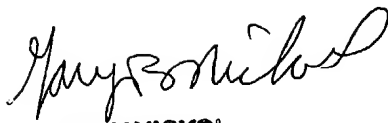
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gary B. Nickol Ph.D.
Primary Examiner

Art Unit: 1642

Art Unit 1642

GBN


GARY NICKOL
PRIMARY EXAMINER